

TABLE 160.077-2(j)—REFERENCE VEST MINIMUM KAPOK WEIGHT AND VOLUME DISPLACEMENT

Reference PFD type	Front insert (2 each)		Back insert	
	Minimum kapok weight g (oz)	Volume displacement N (lb)	Minimum kapok weight g (oz)	Volume displacement N (lb)
Devices for adults, weighing over 40 kg (90 lb):				
Type II, III, and V Recreational	234 (8.25)	40±1 (9.0±0.25)	156 (5.5)	27±1 (6.0±0.25)
Devices for youths, weighing 23–40 kg (50–90 lb):				
Type I	184 (6.5)	31±1 (7.0±0.25)	170 (6.0)	30±1 (6.5±0.25)
Type II, III, and V ¹	156 (5.5)	26±1 (5.75±0.25)	149 (5.25)	24±1 (5.5±0.125)
Devices for small children, weighing 14–23 kg (30–50 lb):				
Type I	128 (4.5)	21±1 (4.75±0.25)	156 (5.5)	30±1 (6.5±0.25)
Type II	100 (3.5)	17±1 (3.75±0.25)	135 (4.75)	22±1 (5.0±0.25)

¹ Both Recreational and Commercial.

(k) *Second stage donning* means adjustments or steps necessary to make a PFD provide its intended flotation characteristics after the device has been properly donned and then inflated.

(l) *SOLAS lifejacket*, in the case of a hybrid inflatable PFD, means a PFD approved as meeting the requirements for lifejackets in the 1983 Amendments to the International Convention for the Safety of Life at Sea, 1974 (SOLAS 74/83), in addition to the requirements of this subpart.

[CGD 78-174, 50 FR 33928, Aug. 22, 1985, as amended by CGD 78-174A, 51 FR 4351, Feb. 4, 1986; CGD 88-070, 53 FR 34536, Sept. 7, 1988. Redesignated and amended by CGD 78-174, 60 FR 2486, Jan. 9, 1995; 60 FR 7131, Feb. 7, 1995; CGD 95-072, 60 FR 50466, Sept. 29, 1995; CGD 96-041, 61 FR 50733, Sept. 27, 1996; USCG-2009-0702, 74 FR 49237, Sept. 25, 2009]

§ 160.077-3 Required to be worn.

(a) A Type V hybrid PFD may be used to meet the Coast Guard PFD carriage requirements of subpart 25.25 of this chapter, and 33 CFR part 175, only if the PFD is used in accordance with any requirements on the approval label. PFDs marked “REQUIRED TO BE WORN” must be worn whenever the vessel is underway and the intended wearer is not within an enclosed space.

(b) If hybrid PFD’s with the marking “REQUIRED TO BE WORN” are not worn under the conditions stated in paragraph (a) of this section, other approved PFD’s will have to be provided to comply with the applicable carriage requirements in 33 CFR part 175 and subpart 25.25 of this chapter.

(c) The following PFD’s must be marked “REQUIRED TO BE WORN” as specified in § 160.077-31:

(1) Each Type V recreational hybrid PFD.

(2) Each Type V commercial hybrid PFD.

[CGD 78-174, 50 FR 33928, Aug. 22, 1985. Redesignated and amended by CGD 78-174, 60 FR 2486, Jan. 9, 1995]

§ 160.077-4 Type.

(a) A hybrid PFD that successfully passes all applicable tests may be approved as a Type I, II, III, or V for various size ranges of persons weighing over 23 kg (50 lb), as Type I or II for persons weighing 14–23 kg (30–50 lb) or as Type I or II for other sizes. A Type V PFD has limitations on its approval.

(b) The approval tests in this subpart require each Type V hybrid PFD to have at least the same performance as a Type I, II, or III PFD for adult and youth sizes or Type I or II PFD for child sizes.

(c) A hybrid PFD may be approved for use on recreational boats, commercial vessels or both if the applicable requirements are met.

[CGD 78-174, 60 FR 2486, Jan. 9, 1995]

§ 160.077-5 Incorporation by reference.

(a) Certain materials are incorporated by reference into this subpart with the approval of the Director of the Federal Register. The Office of the Federal Register publishes a table, “Material Approved for Incorporation by Reference,” which appears in the Finding Aids section of this volume. In

Coast Guard, DHS

§ 160.077-6

that table is found the date of the edition approved, citations to the particular sections of this part where the material is incorporated, addresses where the material is available, and the date of approval by the Director of the Federal Register. To enforce any edition other than the one listed in the table, notice of the change must be published in the FEDERAL REGISTER and the material made available to the public. All approved material is on file at the Office of the Federal Register, Washington, DC 20408, and at the U.S. Coast Guard, Lifesaving and Fire Safety Division (CG-5214), 2100 2nd St., SW., Stop 7126, Washington, DC 20593-7126.

(b) The materials approved for incorporation by reference in this subpart are:

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM B 117-97, Standard Practice for Operating Salt Spray (Fog) Apparatus—160.077-11

ASTM D 751-95, Standard Test Methods for Coated Fabrics—160.077-19

ASTM D 1434-82 (1988), Standard Test Method for Determining Gas Permeability Characteristics of Plastic Film and Sheeting—160.077-19

FEDERAL STANDARDS

In Federal Test Method Standard No. 191 the following test methods:

- (1) Method 5100, Strength and Elongation, Breaking of Woven Cloth; Grab Method.
- (2) Method 5132, Strength of Cloth, Tearing; Falling-Pendulum Method.
- (3) Method 5134, Strength of Cloth, Tearing; Tongue Method.
- (4) Method 5804.1, Weathering Resistance of Cloth; Accelerated Weathering Method.
- (5) Method 5762, Mildew Resistance of Textile Materials; Soil Burial Method.

Federal Standard No. 751, Stitches, Seams, and Stitching.

MILITARY SPECIFICATIONS

MIL-L-24611(SH)—Life Preserver Support Package For Life Preserver, MK 4.

NATIONAL BUREAU OF STANDARDS (NBS)

“The Universal Color Language” and “The Color Names Dictionary” in *Color: Universal Language and Dictionary of Names*, National Bureau of Standards Special Publication 440.

UNDERWRITERS LABORATORIES (UL)

UL 1191, “Components for Personal Flotation Devices.”

UL 1517, “Hybrid Personal Flotation Devices.”

[CGD 78-174, 50 FR 33928, Aug. 22, 1985. Redesignated by CGD 78-174, 60 FR 2486, Jan. 9, 1995; CGD 95-072, 60 FR 50467, Sept. 29, 1995; CGD 96-041, 61 FR 50733, Sept. 27, 1996; USCG-1999-5151, 64 FR 67184, Dec. 1, 1999; USCG-2009-0702, 74 FR 49237, Sept. 25, 2009]

§ 160.077-6 Approval procedures.

(a) *General.* Subpart 159.005 of this chapter contains the approval procedures. Those procedures must be followed, excepted as modified in this paragraph.

(1) Preapproval review under §§ 159.005-5 and 159.005-7 may be omitted if a similar design has already been approved.

(2) The information required in all three subparagraphs of § 159.005-5(a)(2) must be included in the application.

(3) The application must also include the following:

(i) The type of performance (i.e. Donned Type I, Type II or Type III) that the PFD is designed to provide.

(ii) Any special purpose(s) for which the PFD is designed and the vessel(s) or type(s) of vessel on which its use is planned.

(iii) Buoyancy and torque tolerances to be allowed in production.

(iv) The text of any optional marking to be provided in addition to required text.

(v) The manual required by § 160.077-29 (UL 1517 text may be omitted in this submission).

(vi) The size range of wearers that the device is intended to fit.

(4) The description of quality control procedures required by § 159.005-9 of this chapter to be submitted with the test report may be omitted as long as the manufacturer's planned quality control procedures comply with § 160.077-23.

(b) *Waiver of tests.* If a manufacturer requests that any test in this subpart be waived, one of the following must be provided to the Commandant as justification for the waiver:

(1) Acceptable test results on a PFD of sufficiently similar design.

(2) Engineering analysis showing that the test is not applicable to the particular design or that by design or construction the PFD cannot fail the test.